

Method for forming of tubular work-pieces using a segmented tool

Abstract

The hydroforming tool of the present invention comprises a pair of upper and lower tool inserts (B) having open axial ends and defining an elongated cavity there between when said tool inserts are forced together. The upper and/or lower tool inserts are composed of segments that are attached to the upper and a lower base plates, (A), by bolts. Retaining elements, such as pins, are introduced into holes in the base plates and continues into cavities (D) formed in the segmented inserts. This prevents the insert segments from moving during the forming operation. In this way the use of base blocks may be omitted. Sometimes the friction force acting between the base plate and segmented inserts, caused by the high pressure applied to the tool surfaces, is sufficient to prevent the separation of the segments, whereby the segments are kept in place without the use of retaining elements.